IRRIGATION TECHNIQUES

1	Course Title:	IRRIGATION TECHNIQUES
2	Course Code:	TRMS215
3	Type of Course:	Optional
4	Level of Course:	Short Cycle
5	Year of Study:	2
6	Semester:	3
7	ECTS Credits Allocated:	3.00
8	Theoretical (hour/week):	2.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	-
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Öğr.Gör.Dr. ARZU MOR
15	Course Lecturers:	Meslek Yüksekokulları Yönetim Kurullarının görevlendirdiği öğretim elemanları.
16	Contact information of the Course Coordinator:	Öğr. Gör. Dr. Arzu Mor arzum@uludag.edu.tr 02242942387 BUÜ Teknik Bilimler Meslek Yüksekokulu Görükle Kampüsü BURSA
17	Website:	
18	Objective of the Course:	Understanding of irrigation machinery in agriculture, different irrigation systems, calculation of irrigation projects
19	Contribution of the Course to Professional Development:	The basis of our course is to recognize the irrigation methods and technologies required by efficient and sustainable agriculture, and to evaluate them in order to increase agricultural production by knowing the irrigation machines well.
20	Learning Outcomes:	
	1	Understanding basic fluid mechanics. Classification of irrigation pumps in agriculture.
	2	Understanding of the pump characteristics, using relevant charts
	3	Understanding basic theory and working conditions of pumps
	4	Understanding of the pump performance characteristics
	5	Making of the pump performance experiments
	6	Definition and parts of the moving irrigation machinery, sprinkler and drip irrigation systems, and understanding of the principles of design.
	7	Selection of the appropriate pump for irrigation systems
	8	
	9	
	10	
21	Course Content:	

Course Content:

Week	Theoretical	Practice
1	Introduction, basic fluid mechanics	

2	The importance of irrigation in agriculture and general irrigation mechanization. Definition of irrigation machinery	
3	Aim and classification of pumps	
4	Losses of the pumping plants	
5	Height of the pumping plants	
6	Pump plants and pump characteristics.	
7	Examination of the different pumping plant characteristics	
8	Pump performances and determination of the pump characteristics.	
9	Exam and repeat	
10	Definition and parts of the moving irrigation machinery,	
11	Definition and parts of sprinkler and drip irrigation systems	
12	A sample project of irrigation system	
13	A sample project of irrigation system	
14	Selection of the appropriate pump for irrigation systems and pump operating costs	

22	Textbooks, References and/or Other Materials:	Santrifüj Pompalar, Derin Kuyu Pompaları, Dalgıç Pompalar ve Pompa Denemeleri. Uz,E., V.Demir.1995. E.Ü.Ziraat Fakültesi Yayınları, Teksir No.45/1 Sulama Sistemlerinin Projelendirilmesi. Tarım ve Köyişleri ... University Press, Cambridge. ISBN 0-632-03417-3

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	14	2.00	28.00
Self study and preparation	0	0.00	0.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	12.00	12.00
Others	0	0.00	0.00
Final Exams	1	22.00	22.00
Total Work Load			90.00
Total work load/ 30 hr			3.00
ECTS Credit of the Course			3.00

TERM LEARNING ACTIVITIES	NUMBER	WEIGHT
Midterm Exam	1	40.00
Quiz	0	0.00
Home work-project	0	0.00
Final Exam	1	60.00
Total	2	100.00
Contribution of Term (Year) Learning Activities to Success Grade		40.00
Contribution of Final Exam to Success Grade		60.00
Total		100.00
Measurement and Evaluation Techniques Used in the Course		Measurement and evaluation is carried out according to the priciples of Bursa uludag University Associate and Undergraduate Education Regulation.

24	**ECTS / WORK LOAD TABLE**

25	**CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS**															
	PQ1	**PQ2**	**PQ3**	**PQ4**	**PQ5**	**PQ6**	**PQ7**	**PQ8**	**PQ9**	**PQ10**	**PQ11**	**PQ12**	**PQ13**	**PQ14**	**PQ15**	**PQ16**
ÖK1	5	5	3	0	0	0	4	5	5	3	0	0	0	0	0	0
ÖK2	5	5	3	0	0	0	4	0	5	3	0	0	0	0	0	0

ÖK3	5	5	3	0	0	0	4	0	5	3	0	0	0	0	0	0
ÖK4	5	5	3	0	0	0	4	0	5	2	0	0	0	0	0	0
ÖK5	5	5	3	0	0	0	4	0	5	2	0	0	0	0	0	0
ÖK6	5	5	3	0	0	0	4	0	5	2	0	0	0	0	0	0
ÖK7	5	5	3	0	0	0	4	0	5	2	0	0	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications

Contribution Level:	**1 very low**	**2 low**	**3 Medium**	**4 High**	**5 Very High**